

PATENT
Attorney Docket No. 10012357

WHAT IS CLAIMED IS:

1. A sheet-wise binding system comprising:
 - a sheet transport path for transporting a plurality of printed sheets in a sheet-wise manner;
 - a punch configured to punch a feature into at least one of the sheets traveling through the sheet transport path;
 - a stacking system for stacking the punched and unpunched sheets;
 - a binding system for binding the stacked sheets to form a finished document; and
 - a controller programed to control the sheet transport path and the punch to punch the feature in some of the sheets and not punch the feature in others of the sheets according to a punch schedule.
2. The system of Claim 1, wherein the punch is configured to punch the edges of the sheets to form an edge feature.
3. The system of Claim 2, wherein the edge feature is formed on leading and a trailing edges of the sheets.
4. The system of Claim 2, wherein the edge feature is formed on the leading edges of the sheets.
5. The system of Claim 2, wherein the edge feature is formed on the trailing edges of the sheets.
6. The system of Claim 2, wherein the edge feature is a finger index.

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7. The system of Claim 2, wherein the controller controls the sheet transport path to locate and punch the finger index at a varying depth on successive pages.
8. The system of Claim 2, wherein the controller controls the punch to locate and punch the finger index at a varying depth on successive pages.
9. The system of Claim 6, wherein the finger index is semi-circular.
10. The system of Claim 6, wherein the finger index is polygonal.
11. The system of Claim 2, wherein the punch is configured to punch the edges of the sheets to form an edge feature in the form of an index tab.
12. The system of Claim 1, wherein the binding system is a stapler.
13. The system of Claim 1, wherein the binding system applies adhesive.
14. The system of Claim 1, wherein the punch schedule of the controller determines whether or not to punch a sheet based on a location of the sheet in the stack of sheets.
15. The system of Claim 1, wherein the punch is movable in a direction substantially parallel to an edge of the sheets being punched to locate the feature at a variable position along the edge.

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16. The system of Claim 1, wherein the punch is configured to punch a window in a sheet forming a cover of a document.
17. The system of Claim 1, wherein the punch is configured to punch perforations to form a tear out card.
18. The system of Claim 1, wherein the punch is configured to punch the edges of the sheets to form a saw tooth edge feature.
19. A method of binding sheets to form a document, the method comprising:
 - delivering a plurality of sheets to a punch in a sheet-wise manner;
 - punching at least one of the sheets with the punch to form a feature according to a punching schedule;
 - stacking punched and unpunched sheets from the punch; and
 - binding the stacked sheets to form a document.
20. The method of Claim 19, wherein the step of punching forms an edge feature.
21. The method of Claim 20, wherein the step of punching forms the edge feature on the leading and trailing edges of the sheets.
22. The method of Claim 20, wherein the step of punching forms the edge feature on the leading edges of the sheets.

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23. The method of Claim 20, wherein the step of punching forms the edge feature on the trailing edges of the sheets.

24. The method of Claim 19, wherein the punching schedule indicates the page numbers to be punched and the location to be punched.

25. The method of Claim 19, wherein the sheets are printed prior to punching.

26. The method of Claim 19, wherein the step of punching forms a window in a sheet forming a cover of a document.

27. The method of Claim 19, wherein the step of punching forms a line of perforations to form a tear out card.

28. The method of Claim 19, wherein the punching schedule provides information for punching edge features at gradually varying depths.

29. A sheet-wise binding system comprising:

a sheet transport path for transporting a plurality of printed sheets in a sheet-wise manner;

a trimmer configured to trim the edges of the sheets traveling through the sheet transport path to form a saw tooth edge feature;

a stacking system for stacking the trimmed sheets;

a binding system for binding the stacked sheets to form a finished document; and

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a controller programed to control the sheet transport path and the trimmer to trim the edges of the sheets at a varying location according to a trim schedule to create the saw tooth edge feature.